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Control system for power transistors of converter - has additional opposite polarity transistors connected across emitter-base junction to discharge stored charges in bases efficiently

ZAITSEVSKII V K 01.10.76-SU-407643

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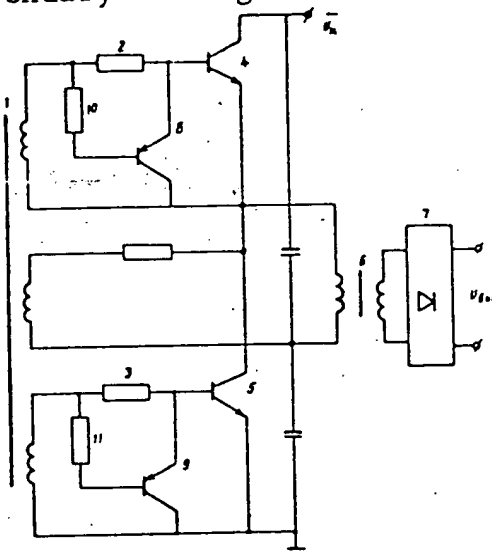
A converter has a commutating transformer (1). Its secondary windings are connected to the power transistors (4, 5) and through the resistors (2, 3) to the transistor bases. A non-saturating transformer is located between the pow-er transistors and the output rectifier (7). The additional transistors (8, 9) which have a conductivity, opposite to the transistor (4, 5) are connected to the transistors (4, 5) bases and to their emit-ters. The transistor's (9, 8) bases are joined through resistors (10, 11) to the common junction of the base resistors (2, 3) and the commut-ating transformer windings.



The transistors (4, 5) start to switch-off, when the commutating transformer (1) becomes saturated. The addition-al transistors, which are connected to the saturated transistors (4 or 5) also become saturated, when the transformer (1) voltage drops. An additional discharge path is formed for the base storage capacities. The additional transistor's resistances are low. The base stored charg-es are discharged faster than without the additional transistors (4, 5). The converter efficiency is increased.

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